

# TA-H6800N

## SERVICE MANUAL



*Canadian Model  
AEP Model  
UK Model  
E Model  
Australian Model  
Tourist Model*

This set is the Power Amplifier section in FH-E9X, MHC-6800.

### SPECIFICATIONS

#### AUDIO POWER SPECIFICATIONS (CND model)

##### POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

For front speaker:

With 6 ohm loads both channels driven, from 40—20,000 Hz; rated 70 watts per channel minimum RMS power, with no more than 1% total harmonic distortion from 250 milliwatts to rated output.

For rear speaker:

With 16 ohm loads both channels driven, from 100—20,000 Hz; rated 10 watts per channel minimum RMS power, with no more than 1% total harmonic distortion from 250 milliwatts to rated output.

(CND model)

##### Continuous RMS power output

FRONT: 70 + 70 watts  
(6 ohms, at 40 Hz—20 kHz, 1% THD)  
REAR: 10 + 10 watts  
(16 ohms, at 100 Hz—20 kHz, 1% THD)  
FRONT: 80 + 80 watts  
(6 ohms, at 1 kHz, 5% THD)  
REAR: 12 + 12 watts  
(16 ohms, at 1 kHz, 5% THD)

(AEP, UK, G, IT model)

##### Continuous RMS power output

FRONT: 70 + 70 watts  
(6 ohms, at 1 kHz, DIN)  
REAR: 10 + 10 watts  
(16 ohms, at 1 kHz, DIN)  
FRONT: 80 + 80 watts  
(6 ohms, at 1 kHz, 5% THD)  
REAR: 12 + 12 watts  
(16 ohms, at 1 kHz, 5% THD)

##### Music power output

FRONT: 185 + 185 watts  
(6 ohms, at 1 kHz, 10% THD)  
REAR: 15 + 15 watts  
(16 ohms, at 1 kHz, 10% THD)

(AUS model)

##### Continuous RMS power output

FRONT: 80 + 80 watts  
(6 ohms, at 1 kHz, 5% THD)  
REAR: 12 + 12 watts  
(8 ohms, at 1 kHz, 5% THD)

##### Peak music power output

1,000 watts (4 speakers driven)

(E, EA, JE, MY, SP model)

##### Continuous RMS power output

FRONT: 80 + 80 watts  
(6 ohms, at 1 kHz, 5% THD)  
REAR: 12 + 12 watts  
(16 ohms, at 1 kHz, 5% THD)

##### Peak music power output

FRONT: 80 + 80 watts  
(6 ohms, at 1 kHz, 5% THD)  
REAR: 12 + 12 watts  
(16 ohms, at 1 kHz, 5% THD)

##### Inputs

MIX MIC (minijack):

(CND model)  
sensitivity 1 mV,  
impedance 10 kilohms  
(EXCEPT CND model)  
sensitivity 1 mV,  
impedance 600 ohms

##### Outputs

##### HEADPHONES

(stereo minijack):  
accepts headphones of  
8 ohms or more

##### FRONT SPEAKER:

(CND model)  
accepts speakers of 6 to 16 ohms  
(EXCEPT CND model)  
accepts speakers of 8 to 16 ohms

##### REAR SPEAKER (phono jack):

(CND, AEP, UK, G, IT model)  
accepts speakers of 16 ohms  
(E, AUS, EA, JE, MY, SP model)  
accepts speakers of 8 to 16 ohms

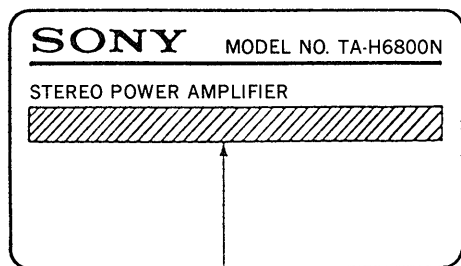
Design and specifications subject to change without notice.

- |                          |                           |
|--------------------------|---------------------------|
| • CND : Canadian model   | • EA : Saudi Arabia model |
| • G : German model       | • JE : Tourist model      |
| • IT : Italian model     | • MY : Malaysia model     |
| • AUS : Australian model | • SP : Singapore model    |

**STEREO POWER AMPLIFIER**  
**SONY®**

## MODEL IDENTIFICATION

—Model Number Label—





CND model : AC: 120V~60Hz  
 AEP model : AC: 220~230V~50/60Hz 150W  
 UK model : AC: 240V~50Hz  
 G, IT model : AC: 220~230V~50Hz 150W  
 E, AUS, EA, JE, MY, SP model : AC: 110~120/220~240V~50/60Hz 175W

- CND: Canadian model
- G : German model
- IT : Italian model
- AUS: Australian model
- EA : Saudi Arabia model
- JE : Tourist model
- MY : Malaysia model
- SP : Singapore model

### NOTE FOR REPAIRING

Usually, the power supply is controlled by the pre amplifier TA-H6800E. However, when repairing this set individually, connect power supply jig for Liberty or FH to CNJ101.


#### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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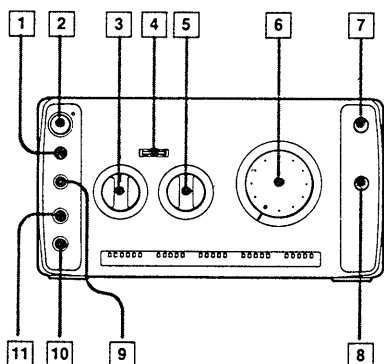
#### ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

## SECTION 1 GENERAL

This section is extracted from instruction manual.

### 1-1. PARTS IDENTIFICATION

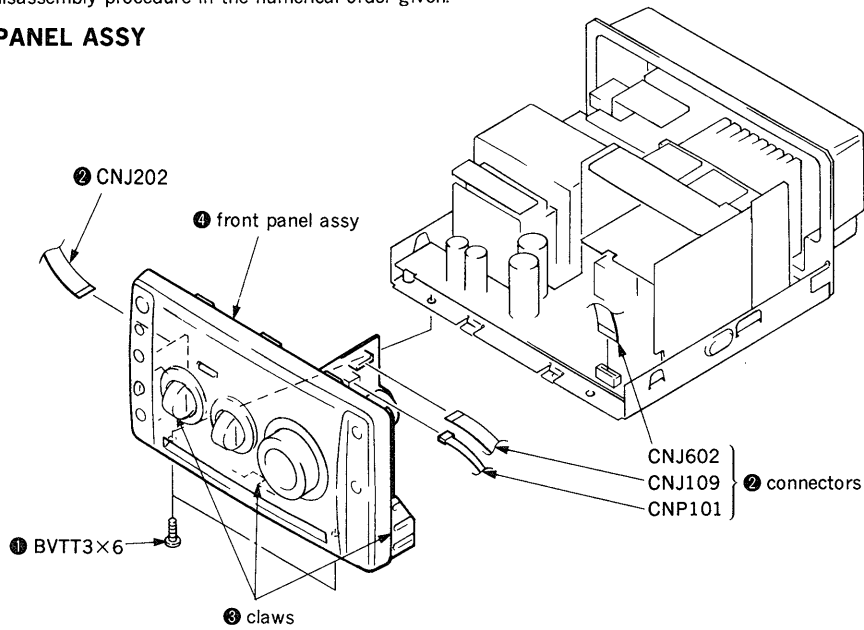


- 1 Remote control sensor
- 2 SYSTEM POWER switch and ON/STANDBY indicator  
The indicator remains lit as long as the AC power cord is connected to a wall outlet.
- 3 FREQUENCY control (36)
- 4 DYNAMIC BASS SYSTEM button (36)
- 5 LEVEL (Bass level) control (36)
- 6 VOLUME control (36, 130)
- 7 MUTING button and indicator (36)
- 8 REAR SPEAKERS button and indicator (110)
- 9 HEADPHONES jack (stereo minijack) (36)
- 10 MIX MIC (microphone) input jack (minijack) (146)
- 11 MIC (microphone) LEVEL control (146)

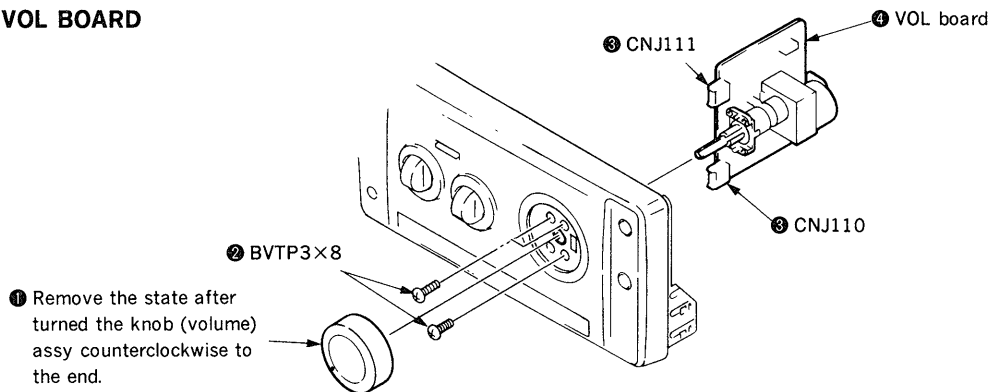
## SECTION 2 DISASSEMBLY

**Note :** Follow the disassembly procedure in the numerical order given.

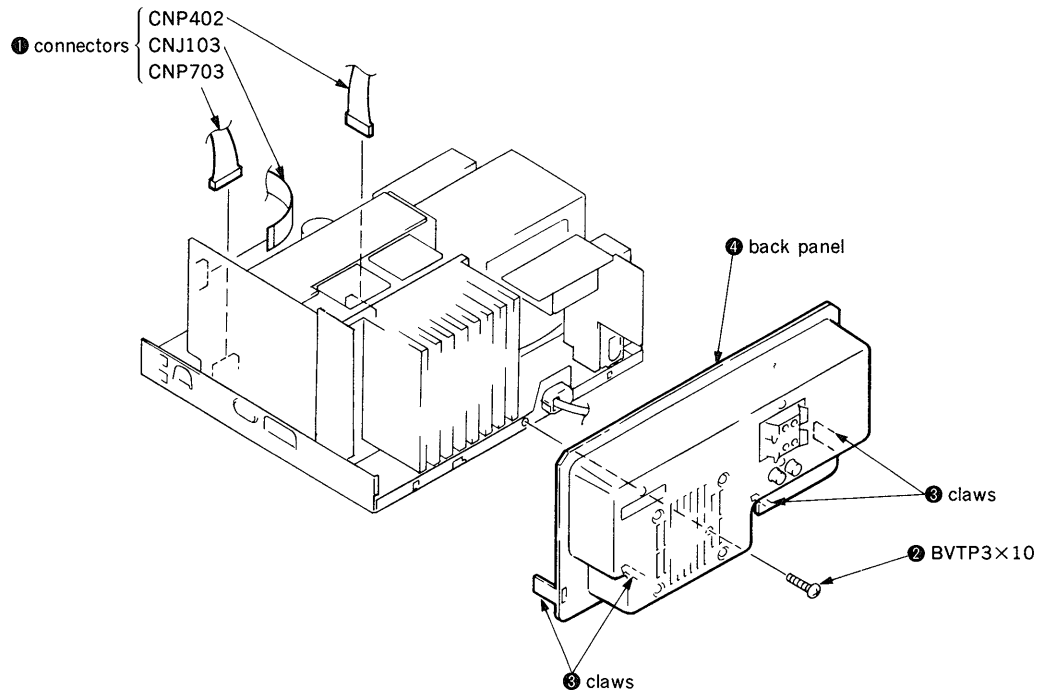
### 2-1. FRONT PANEL ASSY



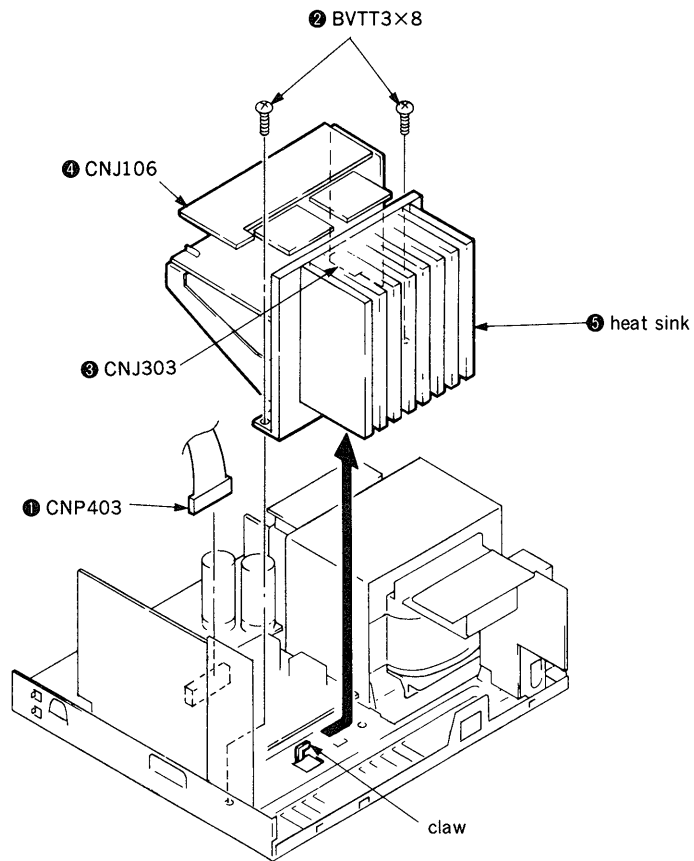
### 2-2. VOL BOARD



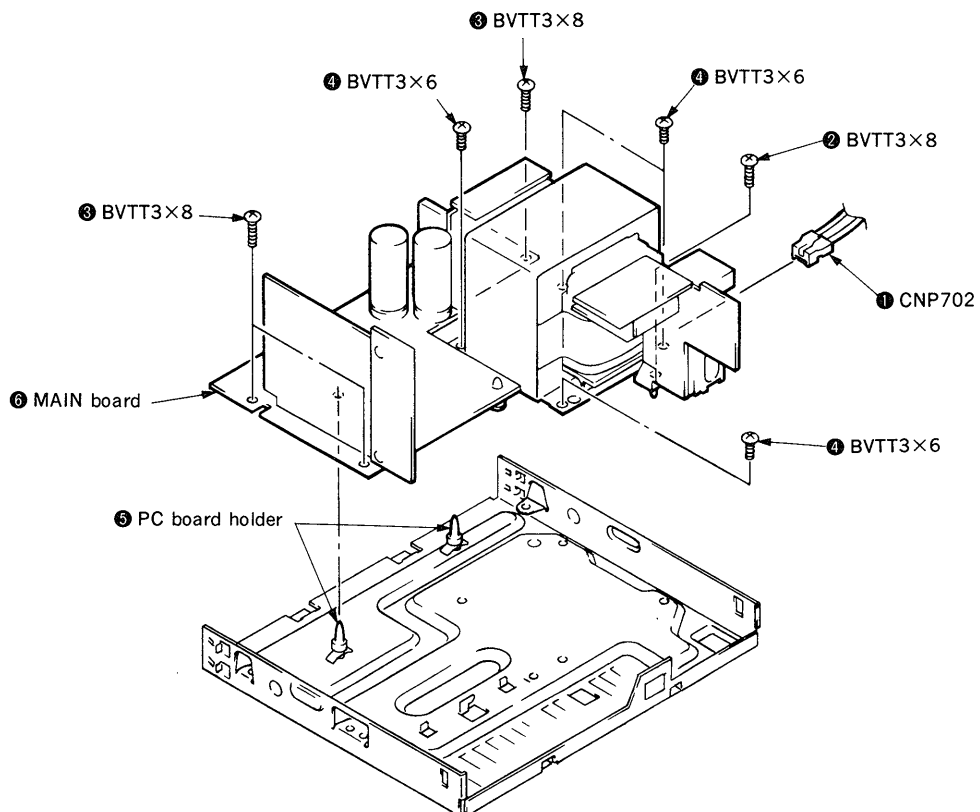
### 2-3. BACK PANEL



## 2-4. HEAT SINK



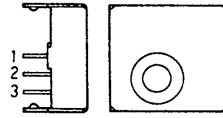
## 2-5. MAIN BOARD



# SECTION 3 DIAGRAMS

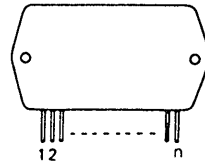
## 3-1. SEMICONDUCTOR LEAD LAYOUTS

**GP1U59XB**

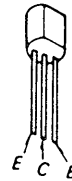


1. VCC  
2. VOUT  
3. GND

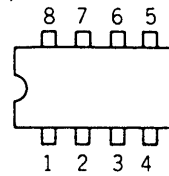
**STK4231MK2**



**2SC1841  
-PAFAEA**

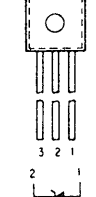


**LB1639  
M5218AP  
μPC393C**

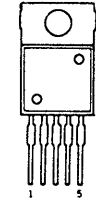


(Top view)

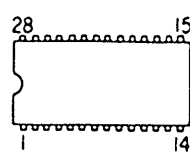
**LM35DZ**



**L78MR06  
SI18752N**

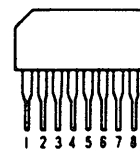


**MC68HC05P9  
-SC405648B**

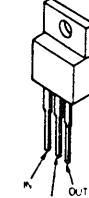


(Top view)

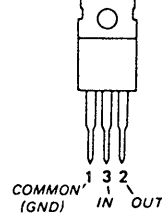
**M5218AL  
μPC1237HA**



**M5F7812L**



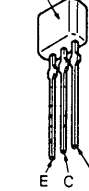
**TA7912S**



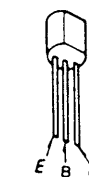
**DTA124ES  
DTC114ES  
DTC124ES  
2SC2603-EF  
2SC3623A-LK**



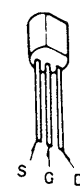
**2SA1175-HFE**



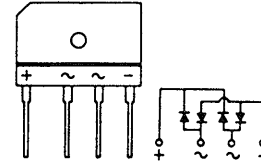
**2SB1116-K**



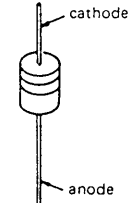
**2SK246-GR3**



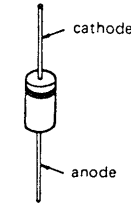
**D5SBA20F01**



**UZL-15M  
11ES2**



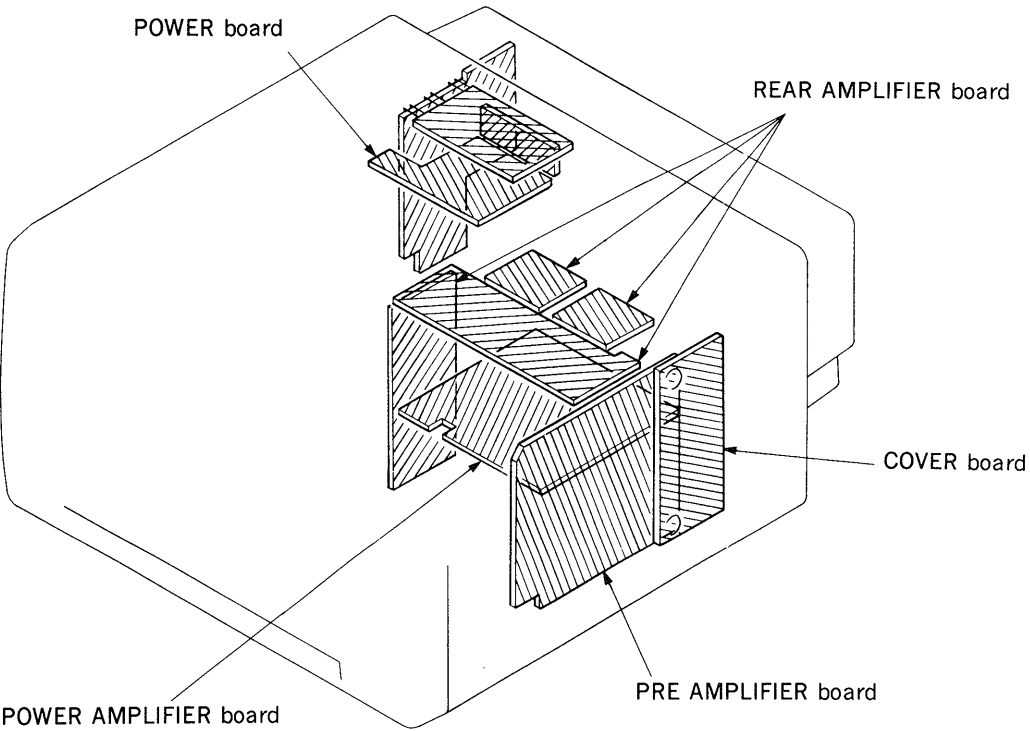
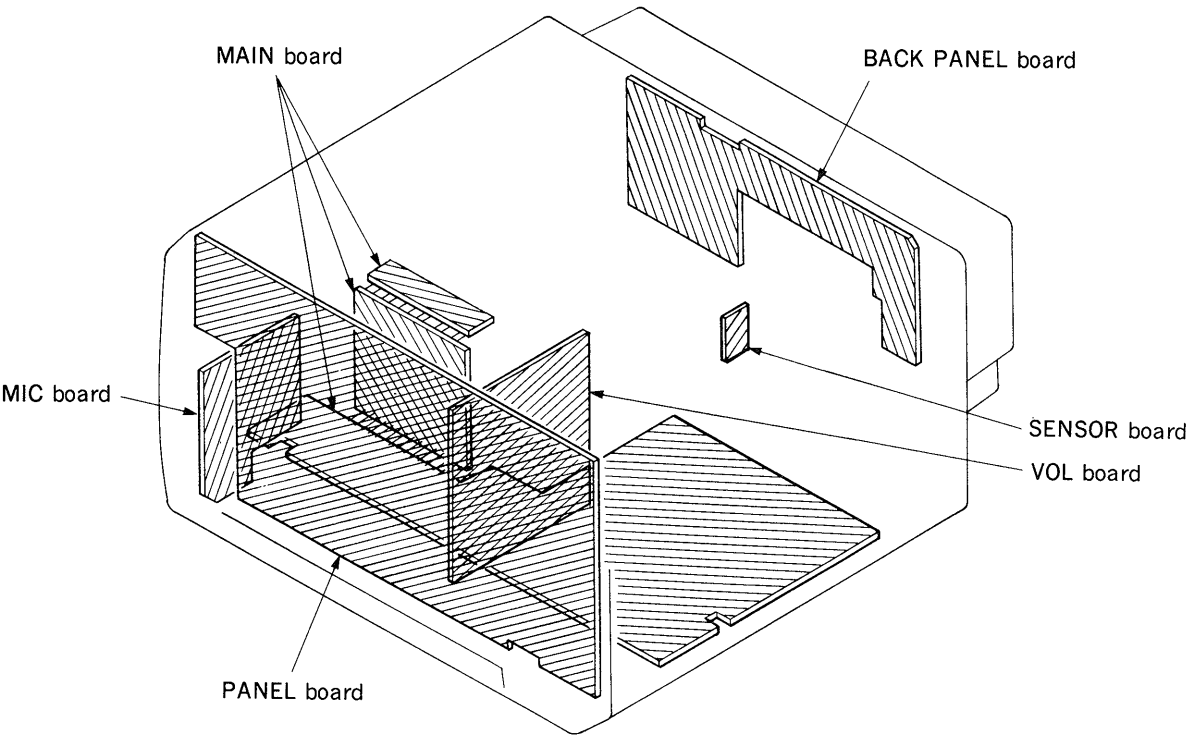
**1N4148M**



**SML1260S  
SML1860A**



3-2. CIRCUIT BOARDS LOCATION





- **Semiconductor Location**

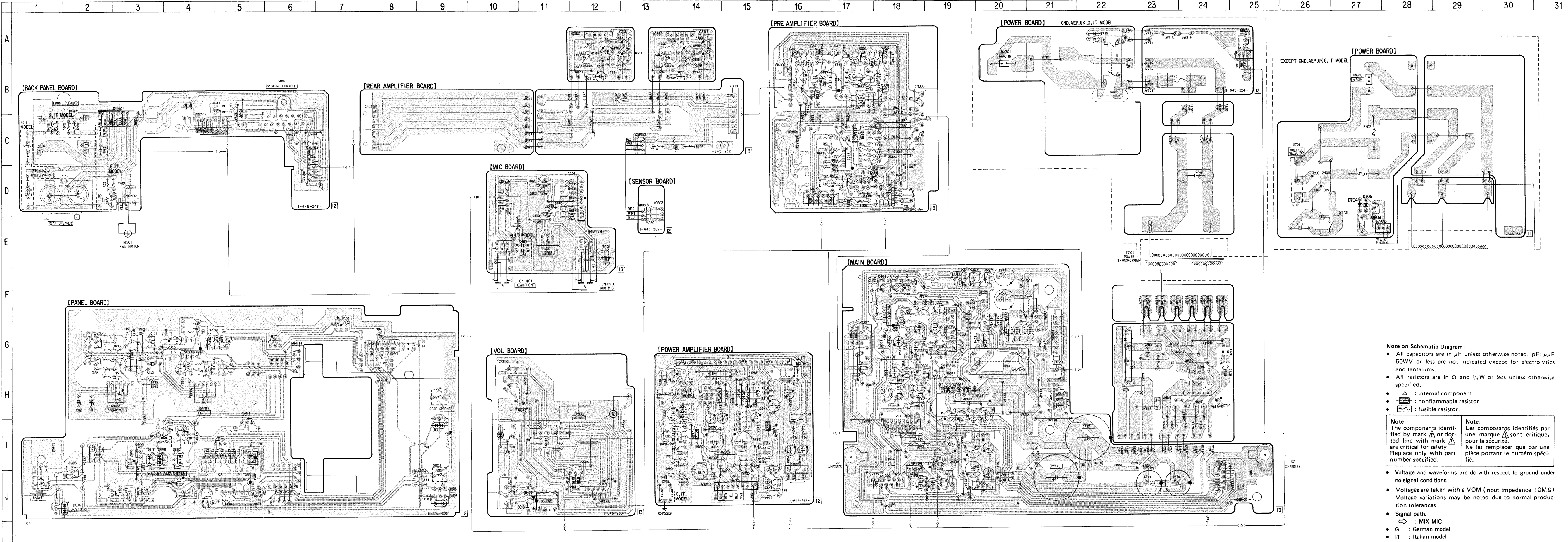
Ref. No.	Location	Ref. No.	Location
D101	G-3	IC201	D-11
D151	G-3	IC301	B-17
D301	G-20	IC302	A-12
D302	G-20	IC352	A-13
D303	B-17	IC401	G-15
D304	B-17	IC501	G-19
D401	J-16	IC502	F-18
D402	G-20	IC503	D-13
D403	G-19	IC601	J-5
D451	I-13	IC602	J-11
D501	G-19	IC603	I-1
D502	H-19	IC701	J-19
D503	F-18	IC702	I-20
D504	H-18	IC703	J-20
D505	H-18		
D506	H-18	Q101	C-17
D507	C-14	Q102	G-3
D551	G-19	Q103	G-2
D601	I-2	Q151	D-17
D602	I-2	Q152	H-3
D603	J-3	Q153	H-2
D605	I-5	Q301	A-17
D606	J-2	Q302	A-18
D607	J-9	Q303	F-19
D608	I-9	Q304	F-20
D609	I-3	Q305	F-19
D610	I-4	Q306	B-18
D611	I-3	Q351	A-16
D612	G-8	Q352	A-16
D613	G-8	Q401	J-15
D614	J-11	Q402	F-18
D701	B-5	Q403	F-18
D702	B-5	Q451	I-13
D703	G-7	Q501	G-18
D704	A-22	Q502	H-18
(D704)	D-27	Q503	H-18
D705	A-22	Q601	J-2
(D705)	D-27	Q602	I-5
D706	I-24	Q603	A-25
D707	I-23	(Q603)	D-27
D708	I-23	Q605	J-4
D709	I-24	Q606	I-2
D710	G-24	Q607	C-17
D711	G-24	Q608	J-9
D712	H-22	Q609	I-3
		Q610	I-4
IC101	C-17	Q611	H-5
IC102	G-4		

( ): EXCEPT CND, AEP, UK, G, IT model




**Note on Printed Wiring Board:**



- ○ — : parts extracted from the component side.
- ■ ■ ■ : Pattern on the side which is seen.
- G : German model
- IT : Italian model
- CND : Canadian model


### 3-3. PRINTED WIRING BOARDS • Refer to page 5 for Semiconductor Lead Layouts.



**Note on Schematic Diagram:**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\mu\text{F}$   
50W or less are not indicated except for electrolytics  
and tantalums.
- All resistors are in  $\Omega$  and  $1/4\text{W}$  or less unless otherwise  
specified.
-  : internal component.
-  : nonflammable resistor.
-  : fusible resistor.

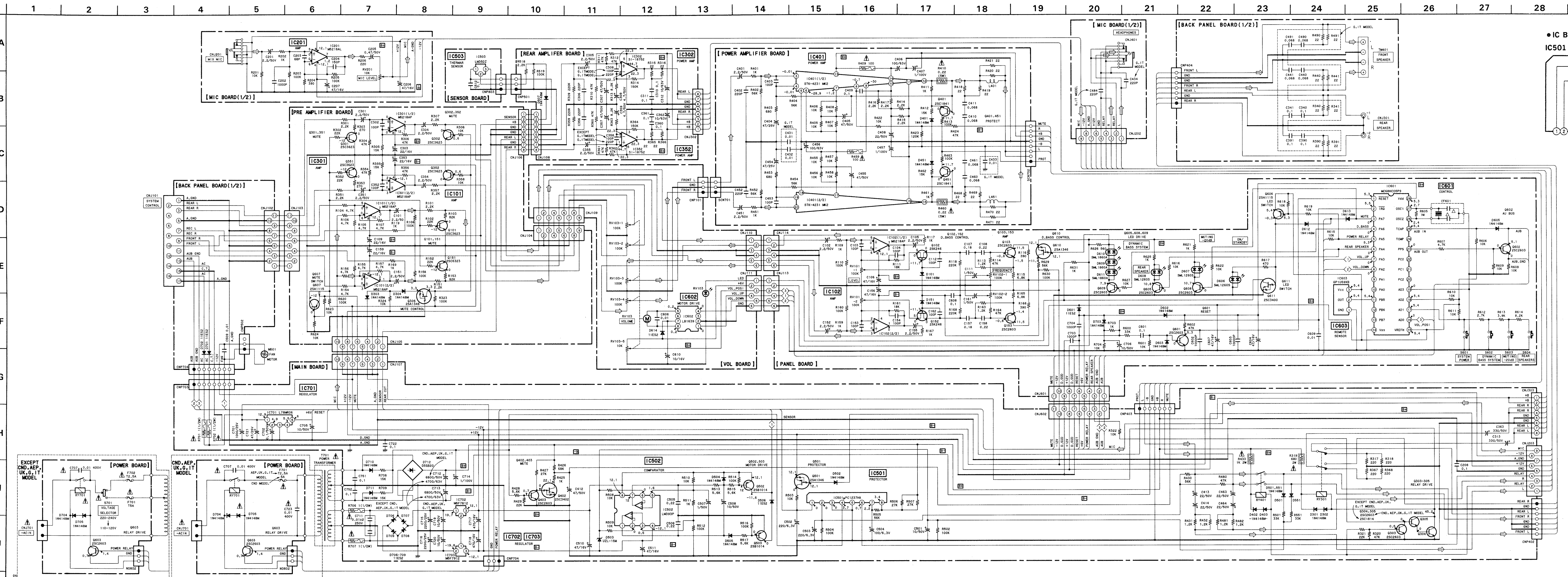
**Note:**  
The components identified by mark  or dotted line with mark  are critical for safety.  
Replace only with part number specified.

**Note:**  
Les composants identifiés par une marque  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

- Voltage and waveforms are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (Input Impedance 10M $\Omega$ ).
- Voltage variations may be noted due to normal production tolerances.
- Signal path.
  - ➡ : MIX MIC
  - G : German model
  - IT : Italian model
  - CND : Canadian model



## 3-4. SCHEMATIC DIAGRAM



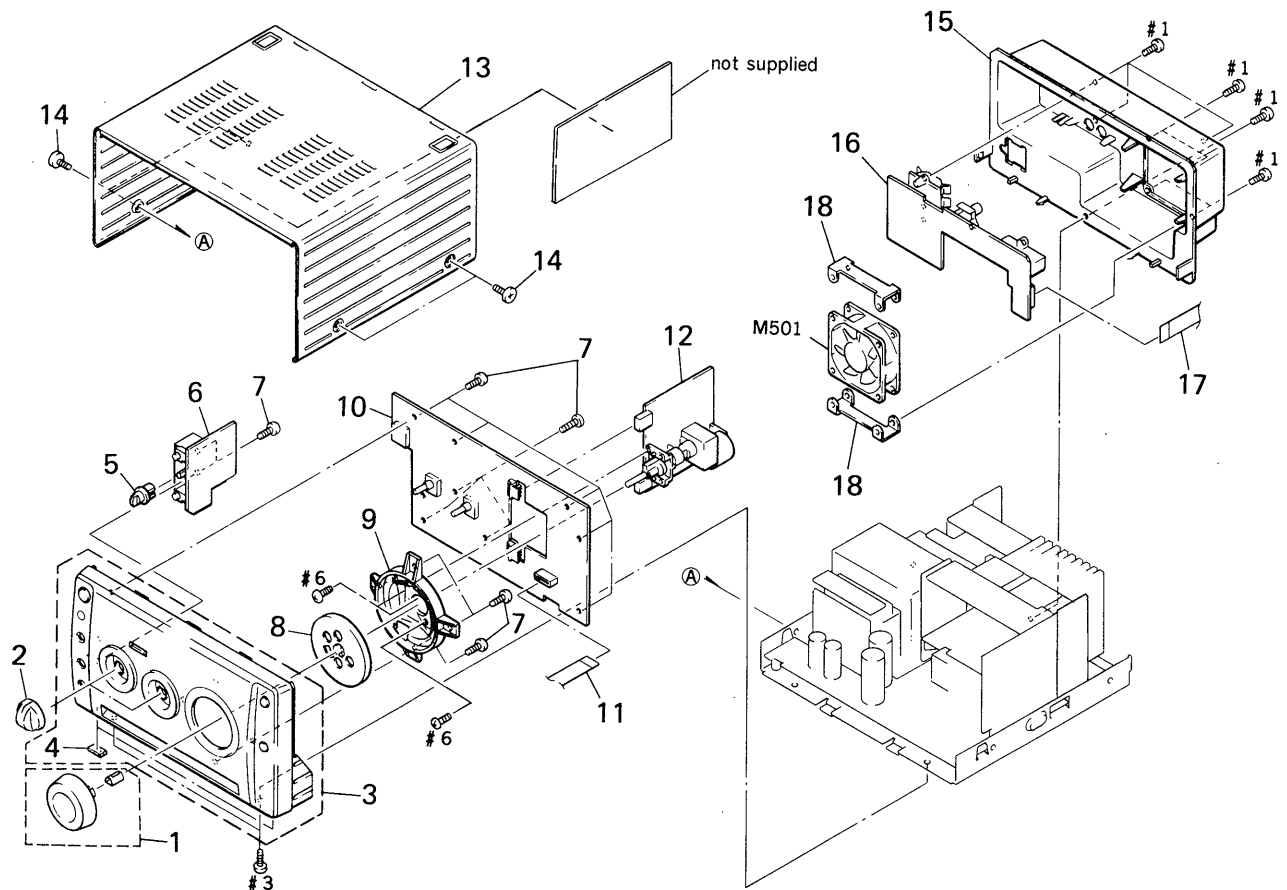


## EXPLODED VIEWS

- Hardware (# mark) list is given in the last of this parts list.

Ne les remplacer que par une pièce portant le numéro spécifié.

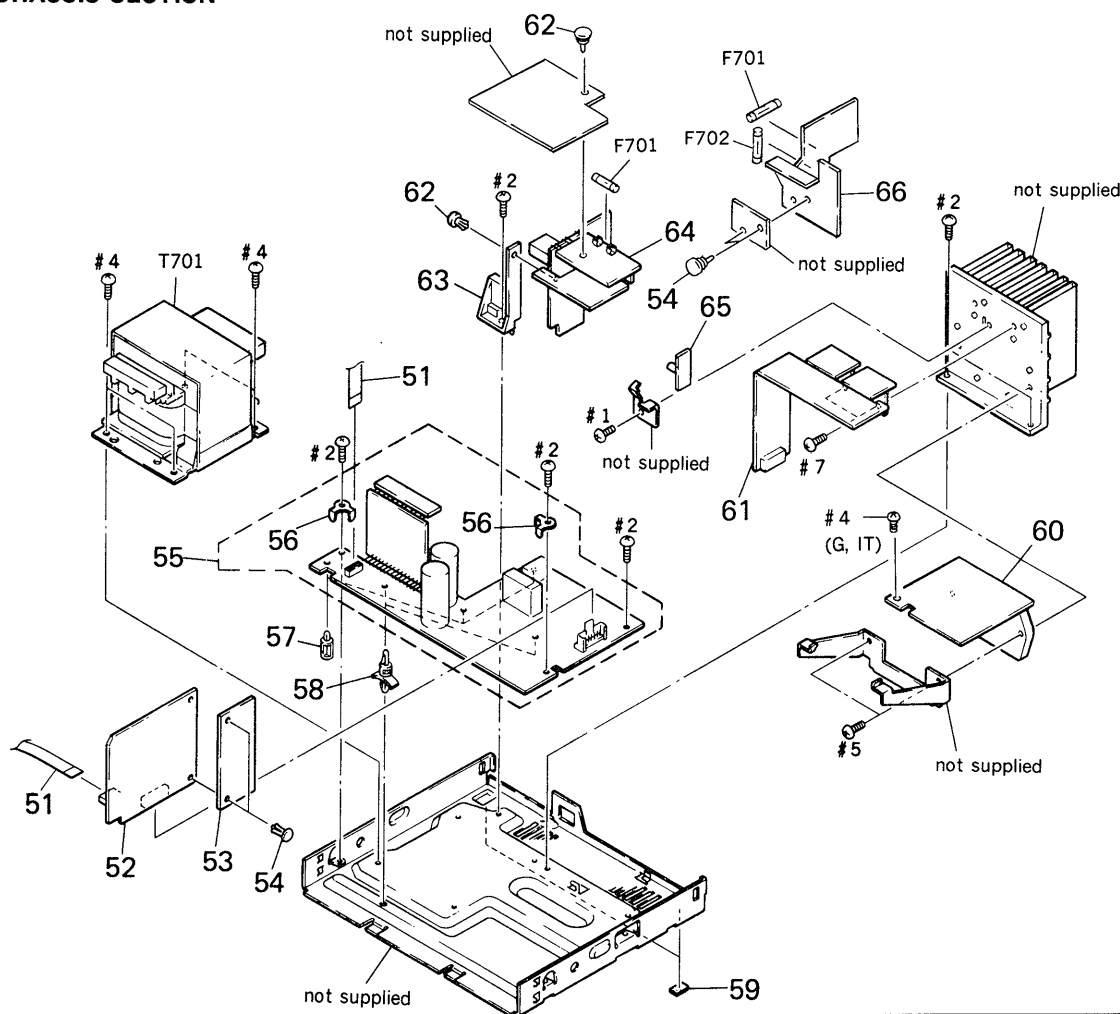
#### 4-1. CABINET SECTION



Ref. No.	Part No.	Description	Remark
1	X-4942-892-1	KNOB (VOLUME) ASSY	
2	4-956-577-02	KNOB (DBFB)	
3	X-4943-415-1	PANEL ASSY, FRONT (EXCEPT CND, AEP, UK, G, IT)	
3	X-4943-416-1	PANEL ASSY, FRONT (CND, AEP, UK, G, IT)	
4	4-930-336-31	FOOT (FELT)	
5	4-932-882-21	KNOB (HP. VOL)	
* 6	1-645-247-11	MIC BOARD	
7	4-951-620-01	SCREW (2. 6X8), +BVTP	
8	X-4942-896-1	VOLUME ASSY, INDICATOR	
* 9	4-954-260-01	COVER (VOLUME)	

Ref. No.	Part No.	Description	Remark
* 10	A-4360-249-A	PANEL BOARD, COMPLETE	
11	1-590-035-11	WIRE, FLAT TYPE (11 CORE)	
* 12	1-645-250-11	VOL BOARD	
* 13	3-382-491-11	CASE	
14	3-363-099-21	SCREW (CASE 3 TP2)	
* 15	4-954-256-11	PANEL, BACK (EXCEPT CND, AEP, UK, G, IT)	
* 15	4-954-256-21	PANEL, BACK (CND, AEP, UK, G, IT)	
* 16	1-645-248-11	BACK PANEL BOARD	
17	1-590-576-11	WIRE, FLAT TYPE (11 CORE)	
18	4-956-816-01	BRACKET (FAN 20A)	
M501	1-541-953-11	MOTOR. DC FAN	

## 4-2. CHASSIS SECTION



The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
	51	1-590-241-11 WIRE, FLAT TYPE (9 CORE)	
*	52	A-4360-250-A PRF AMPLIFIER BOARD, COMPLETE	
*	53	1-645-936-11 COVER BOARD	
	54	4-812-134-00 RIVET NYLON, 3.5	
*	55	A-4360-253-A MAIN BOARD, COMPLETE (CND, AEP, UK, G, IT)	
*	55	A-4360-261-A MAIN BOARD, COMPLETE (EXCEPT CND, AEP, UK, G, IT)	
*	56	4-942-204-01 PLATE, GROUND	
*	57	3-669-610-00 SPACER	
*	58	4-924-098-11 HOLDER, PC BOARD	
	59	4-930-336-21 FOOT (FELT)	
*	60	A-4360-254-A POWER AMPLIFIER BOARD, COMPLETE (CND, AEP, UK)	
*	60	A-4360-259-A POWER AMPLIFIER BOARD, COMPLETE (G, IT)	
*	60	A-4360-262-A POWER AMPLIFIER BOARD, COMPLETE (EXCEPT CND, AEP, UK, G, IT)	

Ref. No.	Part No.	Description	Remark
*	61	A-4360-255-A REAR AMPLIFIER BOARD, COMPLETE (CND, AEP, UK)	
*	61	A-4360-260-A REAR AMPLIFIER BOARD, COMPLETE (G, IT)	
*	61	A-4360-263-A REAR AMPLIFIER BOARD, COMPLETE (EXCEPT CND, AEP, UK, G, IT)	
	62	4-812-134-11 RIVET NYLON, 3.5	
*	63	4-954-242-01 BRACKET (IN)	
*	64	1-645-254-11 POWER BOARD (CND, AEP, UK, G, IT)	
*	65	1-645-262-11 SENSOR BOARD	
*	66	1-647-358-11 POWER BOARD (EXCEPT CND, AEP, UK, G, IT)	
$\Delta$ F701	1-532-299-00	FUSE (T5A) (EXCEPT CND, AEP, UK, G, IT)	
$\Delta$ F701	1-532-286-00	FUSE (T2.5A) (AEP, UK, G, IT)	
$\Delta$ F701	1-532-747-11	FUSE, GLASS TUBE (5A) (CND)	
$\Delta$ F702	1-532-286-00	FUSE (T2.5A) (EXCEPT CND, AEP, UK, G, IT)	
$\Delta$ T701	1-423-545-11	TRANSFORMER, POWER (AEP, G, IT)	
$\Delta$ T701	1-423-546-11	TRANSFORMER, POWER (EXCEPT CND, AEP, UK, G, IT)	
$\Delta$ T701	1-423-549-11	TRANSFORMER, POWER (UK)	
$\Delta$ T701	1-423-699-11	TRANSFORMER, POWER (CND)	

# SECTION 5 ELECTRICAL PARTS LIST

BACK PANEL

MAIN

## NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms.  
METAL: Metal-film resistor.  
METAL OXIDE: Metal oxide-film resistor.  
F: nonflammable

- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

## SEMICONDUCTORS

In each case, u:  $\mu$ , for example:

uA...:  $\mu$ A... uPA...:  $\mu$ PA...

uPB...:  $\mu$ PB... uPC...:  $\mu$ PC... uPD...:  $\mu$ PD...

## CAPACITORS

uF:  $\mu$ F

## COILS

uH:  $\mu$ H

When indicating parts by reference number, please include the board.

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- CND : Canadian model
- G : German model
- IT : Italian model

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
*	1-645-248-11	BACK PANEL BOARD *****					R391	1-249-397-11	CARBON (G, IT)	22	5%	1/4W	F
		< CAPACITOR >					R440	1-249-397-11	CARBON (G, IT)	22	5%	1/4W	F
C340	1-136-165-00	FILM (G, IT)	0.1uF	5%	50V		R441	1-249-397-11	CARBON (G, IT)	22	5%	1/4W	F
C341	1-136-165-00	FILM (G, IT)	0.1uF	5%	50V		R490	1-249-397-11	CARBON (G, IT)	22	5%	1/4W	F
C390	1-136-165-00	FILM (G, IT)	0.1uF	5%	50V		R491	1-249-397-11	CARBON (G, IT)	22	5%	1/4W	F
C391	1-136-165-00	FILM (G, IT)	0.1uF	5%	50V			< TERMINAL >					
C440	1-136-163-00	FILM (G, IT)	0.068uF	5%	50V		TM401	1-537-445-11	TERMINAL BOARD (SP) (FRONT SPERKER)				
		< CONNECTOR >						*****					
C441	1-136-163-00	FILM (G, IT)	0.068uF	5%	50V		*	A-4360-253-A	MAIN BOARD, COMPLETE (CND, AEP, UK, G, IT)				
C490	1-136-163-00	FILM (G, IT)	0.068uF	5%	50V		*	A-4360-261-A	MAIN BOARD, COMPLETE (EXCEPT CND, AEP, UK, G, IT)				
C491	1-136-163-00	FILM (G, IT)	0.068uF	5%	50V			*****					
C509	1-136-153-00	FILM	0.01uF	5%	50V		*	4-942-204-01	PLATE, GROUND				
		< DIODE >						< CAPACITOR >					
* CNJ101	1-580-740-11	SOCKET, CONNECTOR 17P (SYSTEM CONTROL)					C208	1-164-159-11	CERAMIC	0.1uF			50V
* CNJ102	1-568-830-11	SOCKET, CONNECTOR 11P					C313	1-124-912-11	ELECT	330uF	20%		50V
CNJ301	1-568-572-11	JACK, PIN 2P (REAR SPEAKER)					C363	1-124-912-11	ELECT	330uF	20%		50V
CNP404	1-691-769-11	PLUG (MICRO CONNECTOR) 7P					C412	1-124-910-11	ELECT	47uF	20%		50V
* CNP502	1-564-518-11	PLUG, CONNECTOR 3P					C413	1-124-916-11	ELECT	22uF	20%		63V
		< RESISTOR >					C414	1-124-916-11	ELECT	22uF	20%		63V
* CNP704	1-564-342-51	PIN, CONNECTOR 8P					C463	1-124-916-11	ELECT	22uF	20%		63V
		< DIODE >					C464	1-124-916-11	ELECT	22uF	20%		63V
D701	8-719-200-82	DIODE 11ES2					C501	1-124-907-11	ELECT	10uF	20%		50V
D702	8-719-200-82	DIODE 11ES2					C502	1-126-176-11	ELECT	220uF	20%		10V
		< RESISTOR >					C503	1-126-176-11	ELECT	220uF	20%		10V
R340	1-249-397-11	CARBON (G, IT)	22	5%	1/4W	F	C504	1-124-443-00	ELECT	100uF	20%		10V
R341	1-249-397-11	CARBON (G, IT)	22	5%	1/4W	F	C505	1-136-169-00	FILM	0.22uF	5%		50V
R390	1-249-397-11	CARBON (G, IT)	22	5%	1/4W	F	C506	1-136-169-00	FILM	0.22uF	5%		50V
							C507	1-124-903-11	ELECT	1uF	20%		50V
							C508	1-124-907-11	ELECT	10uF	20%		50V
							C510	1-124-477-11	ELECT	47uF	20%		25V
							C511	1-124-477-11	ELECT	47uF	20%		25V
							C701	1-124-557-11	ELECT	1000uF	20%		25V

# MAIN

Ref. No.	Part No.	Description	Remark
C702	1-124-463-00	ELECT 0.1uF	20% 50V
C705	1-124-907-11	ELECT 10uF	20% 50V
C711	1-102-394-11	CERAMIC 0.01uF	250V
C712	1-126-307-11	ELECT 6800uF	20% 50V
		(CND, AEP, UK, G, IT)	
C712	1-104-482-11	ELECT 4700uF	20% 63V
		(EXCEPT CND, AEP, UK, G, IT)	
C713	1-126-307-11	ELECT 6800uF	20% 50V
		(CND, AEP, UK, G, IT)	
C713	1-104-482-11	ELECT 4700uF	20% 63V
		(EXCEPT CND, AEP, UK, G, IT)	
C714	1-124-791-11	ELECT 1.0uF	20% 100V
C715	1-126-943-11	ELECT 2200uF	20% 25V
C716	1-126-943-11	ELECT 2200uF	20% 25V
C717	1-126-935-11	ELECT 470uF	20% 16V
C718	1-126-935-11	ELECT 470uF	20% 16V
C719	1-124-907-11	ELECT 10uF	20% 50V
C720	1-124-907-11	ELECT 10uF	20% 50V
C721	1-124-477-11	ELECT 47uF	20% 25V
C722	1-164-159-11	CERAMIC 0.1uF	50V
C751	1-136-165-00	FILM 0.1uF	5% 50V
C752	1-136-165-00	FILM 0.1uF	5% 50V

## < CONNECTOR >

- CNJ107 1-573-296-11 CONNECTOR, BOARD TO BOARD 10P
- \* CNJ203 1-568-828-11 SOCKET, CONNECTOR 9P
- \* CNJ303 1-564-344-11 CONNECTOR, BOARD TO BOARD 8P
- \* CNJ602 1-568-830-11 SOCKET, CONNECTOR 11P
- CNP402 1-691-769-11 PLUG (MICRO CONNECTOR) 7P
- \* CNP403 1-564-510-11 PLUG, CONNECTOR 7P
- \* CNP703 1-564-342-51 PIN, CONNECTOR 8P
- \* CNP704 1-564-337-61 PIN, CONNECTOR 3P

## < DIODE >

D301	8-719-987-63	DIODE 1N4148M
D302	8-719-987-63	DIODE 1N4148M
D402	8-719-987-63	DIODE 1N4148M
D403	8-719-987-63	DIODE 1N4148M
D501	8-719-987-63	DIODE 1N4148M
D502	8-719-987-63	DIODE 1N4148M
D503	8-719-001-91	DIODE UZL-15M
D504	8-719-987-63	DIODE 1N4148M
D505	8-719-987-63	DIODE 1N4148M
D506	8-719-200-82	DIODE 11ES2
D551	8-719-987-63	DIODE 1N4148M
D706	8-719-200-82	DIODE 11ES2
D707	8-719-200-82	DIODE 11ES2
D708	8-719-200-82	DIODE 11ES2
D709	8-719-200-82	DIODE 11ES2

Ref. No.	Part No.	Description	Remark
D710	8-719-987-63	DIODE 1N4148M	
D711	8-719-987-63	DIODE 1N4148M	
D712	8-719-510-68	DIODE D5SBA20F01	

## < IC >

IC501	8-759-111-68	IC uPC1237HA
IC502	8-759-103-93	IC uPC393C
IC701	8-759-820-13	IC L78MR06
IC702	8-759-231-58	IC M5F7812L
IC703	8-759-245-86	IC TA7912S

## < TRANSISTOR >

Q303	8-729-620-05	TRANSISTOR 2SC2603-EF
Q304	8-729-620-05	TRANSISTOR 2SC2603-EF (CND, AEP, UK, G, IT)
Q304	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA
		(EXCEPT CND, AEP, UK, G, IT)
Q305	8-729-620-05	TRANSISTOR 2SC2603-EF (CND, AEP, UK, G, IT)
Q305	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA
		(EXCEPT CND, AEP, UK, G, IT)
Q402	8-729-900-80	TRANSISTOR DTC114ES
Q403	8-729-620-05	TRANSISTOR 2SC2603-EF
Q501	8-729-900-63	TRANSISTOR DTA124ES
Q502	8-729-118-01	TRANSISTOR 2SB1116-K
Q503	8-729-118-01	TRANSISTOR 2SB1116-K

## < RESISTOR >

R317	1-249-409-11	CARBON 220 5% 1/4W F
R318	1-249-409-11	CARBON 220 5% 1/4W F
<u>A</u> R319	1-215-891-11	METAL OXIDE 680 5% 2W F
R320	1-249-437-11	CARBON 47K 5% 1/4W
R321	1-249-433-11	CARBON 22K 5% 1/4W
R322	1-249-429-11	CARBON 10K 5% 1/4W
R367	1-249-409-11	CARBON 220 5% 1/4W F
R368	1-249-409-11	CARBON 220 5% 1/4W F
R425	1-249-417-11	CARBON 1K 5% 1/4W F
R426	1-249-439-11	CARBON 68K 5% 1/4W
R427	1-249-434-11	CARBON 27K 5% 1/4W
R428	1-249-426-11	CARBON 5.6K 5% 1/4W
R429	1-249-433-11	CARBON 22K 5% 1/4W
R430	1-249-438-11	CARBON 56K 5% 1/4W
R431	1-249-418-11	CARBON 1.2K 5% 1/4W F
R432	1-249-418-11	CARBON 1.2K 5% 1/4W F
<u>A</u> R433	1-215-892-11	METAL OXIDE 1K 5% 2W F
R480	1-249-437-11	CARBON 47K 5% 1/4W
R481	1-249-418-11	CARBON 1.2K 5% 1/4W F
R482	1-249-418-11	CARBON 1.2K 5% 1/4W F
R501	1-249-435-11	CARBON 33K 5% 1/4W
R502	1-249-441-11	CARBON 100K 5% 1/4W
R503	1-249-429-11	CARBON 10K 5% 1/4W
R504	1-249-441-11	CARBON 100K 5% 1/4W

The components identified by mark A or dotted line with mark. A are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque A sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark		
R505	1-249-438-11	CARBON	56K	5%	1/4W
R506	1-249-434-11	CARBON	27K	5%	1/4W
R507	1-249-434-11	CARBON	27K	5%	1/4W
R508	1-249-429-11	CARBON	10K	5%	1/4W
R509	1-249-429-11	CARBON	10K	5%	1/4W
R510	1-249-429-11	CARBON	10K	5%	1/4W
R511	1-249-417-11	CARBON	1K	5%	1/4W F
R512	1-249-405-11	CARBON	100	5%	1/4W F
R513	1-249-426-11	CARBON	5.6K	5%	1/4W
R514	1-249-441-11	CARBON	100K	5%	1/4W
R515	1-249-426-11	CARBON	5.6K	5%	1/4W
R516	1-249-441-11	CARBON	100K	5%	1/4W
R517	1-249-426-11	CARBON	5.6K	5%	1/4W
R551	1-249-435-11	CARBON	33K	5%	1/4W
△R701	1-212-934-00	FUSIBLE	1	5%	1/2W F
△R702	1-212-934-00	FUSIBLE	1	5%	1/2W F
△R706	1-212-934-00	FUSIBLE	1	5%	1/2W F
△R707	1-212-934-00	FUSIBLE	1	5%	1/2W F
R708	1-249-431-11	CARBON	15K	5%	1/4W
R709	1-249-431-11	CARBON	15K	5%	1/4W
< RELAY >					
RY301	1-515-503-00	RELAY			
RY401	1-515-765-11	RELAY			
*****					
*	1-645-247-11	MIC BOARD			
*****					
< CAPACITOR >					
C201	1-124-257-00	ELECT	2.2uF	20%	50V
C202	1-162-294-31	CERAMIC	0.001uF	10%	50V
C203	1-162-219-31	CERAMIC	68PF	5%	50V
C204	1-162-284-31	CERAMIC	150PF	10%	50V
C205	1-124-465-00	ELECT	0.47uF	20%	50V
C206	1-124-477-11	ELECT	47uF	20%	25V
C207	1-124-477-11	ELECT	47uF	20%	25V
C434	1-162-286-31	CERAMIC	220PF	10%	50V
	(G, IT)				
C484	1-162-286-31	CERAMIC	220PF	10%	50V
	(G, IT)				
< JACK >					
CNJ201	1-695-804-11	JACK (MIX MIC)			
* CNJ202	1-568-828-11	SOCKET, CONNECTOR 9P			
CNJ401	1-695-804-11	JACK (HEADPHONES)			
< IC >					
IC201	8-759-634-50	IC M5218AL			

Ref. No.	Part No.	Description	Remark		
< RESISTOR >					
R201	1-249-429-11	CARBON	10K	5%	1/4W
R202	1-249-417-11	CARBON	1K	5%	1/4W F
R203	1-249-441-11	CARBON	100K	5%	1/4W
R204	1-249-412-11	CARBON	390	5%	1/4W F
R205	1-249-441-11	CARBON	100K	5%	1/4W
R206	1-249-409-11	CARBON	220	5%	1/4W F
< VARIABLE RESISTOR >					
RV201	1-241-140-11	RES, VAR, CARBON 10K (MIC LEVEL)			
*****					
*	A-4360-249-A	PANEL BOARD, COMPLETE			
*****					
< CAPACITOR >					
C102	1-124-257-00	ELECT	2. 2uF	20%	50V
C103	1-162-282-31	CERAMIC	100PF	10%	50V
C104	1-162-282-31	CERAMIC	100PF	10%	50V
C105	1-124-257-00	ELECT	2. 2uF	20%	50V
C106	1-124-477-11	ELECT	47uF	20%	25V
C107	1-136-168-00	FILM	0. 18uF	5%	50V
C108	1-136-169-00	FILM	0. 22uF	5%	50V
C111	1-126-160-11	ELECT	1uF	20%	50V
C112	1-162-282-31	CERAMIC	100PF	10%	50V
C152	1-124-257-00	ELECT	2. 2uF	20%	50V
C153	1-162-282-31	CERAMIC	100PF	10%	50V
C154	1-162-282-31	CERAMIC	100PF	10%	50V
C155	1-124-257-00	ELECT	2. 2uF	20%	50V
C156	1-124-477-11	ELECT	47uF	20%	25V
C157	1-136-168-00	FILM	0. 18uF	5%	50V
C158	1-136-169-00	FILM	0. 22uF	5%	50V
C161	1-126-160-11	ELECT	1uF	20%	50V
C162	1-162-282-31	CERAMIC	100PF	10%	50V
C601	1-136-165-00	FILM	0. 1uF	5%	50V
C602	1-162-306-11	CERAMIC	0. 01uF	20%	16V
C603	1-162-306-11	CERAMIC	0. 01uF	20%	16V
C604	1-124-477-11	ELECT	47uF	20%	25V
C607	1-124-477-11	ELECT	47uF	20%	25V
C608	1-164-159-11	CERAMIC	0. 1uF		50V
C609	1-162-306-11	CERAMIC	0. 01uF	20%	16V
C703	1-162-294-31	CERAMIC	0. 001uF	10%	50V
C704	1-162-294-31	CERAMIC	0. 001uF	10%	50V
C706	1-124-907-11	ELECT	10uF	20%	50V
< VIBRTOR >					
CF601	1-577-358-21	VIBRATOR, CERAMIC (4MHz)			

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



# PANEL

Ref. No.	Part No.	Description	Remark
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## < CONNECTOR >

* CNJ113	1-568-318-11	PLUG, CONNECTOR 6P	
* CNJ114	1-568-318-11	PLUG, CONNECTOR 6P	
* CNJ601	1-568-830-11	SOCKET, CONNECTOR 11P	

## < DIODE >

D101	8-719-987-63	DIODE 1N4148M	
D151	8-719-987-63	DIODE 1N4148M	
D601	8-719-200-82	DIODE 11ES2	
D602	8-719-987-63	DIODE 1N4148M	
D603	8-719-987-63	DIODE 1N4148M	
D605	8-719-987-63	DIODE 1N4148M	
D606	8-719-026-64	DIODE SML1260S (ON/STANDBY)	
D607	8-719-026-64	DIODE SML1260S (MUTING -20dB)	
D608	8-719-026-64	DIODE SML1260S (REAR SPEAKER)	
D609	8-719-026-72	DIODE SML1860A (DYNAMIC BASS SYSTEM)	
D610	8-719-026-72	DIODE SML1860A (DYNAMIC BASS SYSTEM)	
D611	8-719-026-72	DIODE SML1860A (DYNAMIC BASS SYSTEM)	
D612	8-719-987-63	DIODE 1N4148M	
D613	8-719-987-63	DIODE 1N4148M	
D703	8-719-987-63	DIODE 1N4148M	

## < IC >

IC102	8-759-634-51	IC M5218AP	
IC601	8-759-163-92	IC MC68HC05P9SC405648B	
IC603	8-749-923-34	PHOTO DIODE GP1U59XB	

## < TRANSISTOR >

Q102	8-729-202-67	TRANSISTOR 2SK246-GR3	
Q103	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q152	8-729-202-67	TRANSISTOR 2SK246-GR3	
Q153	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q601	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q602	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q605	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q606	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q608	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q609	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q610	8-729-900-63	TRANSISTOR DTA124ES	
Q611	8-729-900-36	TRANSISTOR DTC124ES	

## < RESISTOR >

R109	1-249-417-11	CARBON 1K 5% 1/4W F	
R110	1-249-441-11	CARBON 100K 5% 1/4W	
R111	1-249-432-11	CARBON 18K 5% 1/4W	
R113	1-249-418-11	CARBON 1.2K 5% 1/4W F	
R114	1-249-437-11	CARBON 47K 5% 1/4W	
R115	1-249-427-11	CARBON 6.8K 5% 1/4W F	

Ref. No.	Part No.	Description	Remark
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R116	1-249-412-11	CARBON 390 5% 1/4W F	
R117	1-249-417-11	CARBON 1K 5% 1/4W F	
R118	1-247-887-00	CARBON 220K 5% 1/4W	
R159	1-249-417-11	CARBON 1K 5% 1/4W F	
R160	1-249-441-11	CARBON 100K 5% 1/4W	

R161	1-249-432-11	CARBON 18K 5% 1/4W	
R163	1-249-418-11	CARBON 1.2K 5% 1/4W F	
R164	1-249-437-11	CARBON 47K 5% 1/4W	
R165	1-249-427-11	CARBON 6.8K 5% 1/4W F	
R166	1-249-412-11	CARBON 390 5% 1/4W F	

R167	1-249-417-11	CARBON 1K 5% 1/4W F	
R168	1-247-887-00	CARBON 220K 5% 1/4W	
R600	1-249-435-11	CARBON 33K 5% 1/4W	
R601	1-249-429-11	CARBON 10K 5% 1/4W	
R602	1-249-437-11	CARBON 47K 5% 1/4W	

R605	1-247-903-00	CARBON 1M 5% 1/4W	
R606	1-249-429-11	CARBON 10K 5% 1/4W	
R607	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R608	1-249-393-11	CARBON 10 5% 1/4W F	
R609	1-249-429-11	CARBON 10K 5% 1/4W	

R610	1-249-429-11	CARBON 10K 5% 1/4W	
R611	1-249-429-11	CARBON 10K 5% 1/4W	
R612	1-249-422-11	CARBON 2.7K 5% 1/4W F	
R613	1-249-424-11	CARBON 3.9K 5% 1/4W F	
R614	1-249-428-11	CARBON 8.2K 5% 1/4W F	

R615	1-249-429-11	CARBON 10K 5% 1/4W	
R616	1-249-429-11	CARBON 10K 5% 1/4W	
R617	1-249-413-11	CARBON 470 5% 1/4W F	
R618	1-249-429-11	CARBON 10K 5% 1/4W	
R619	1-249-429-11	CARBON 10K 5% 1/4W	

R621	1-249-417-11	CARBON 1K 5% 1/4W F	
R622	1-249-429-11	CARBON 10K 5% 1/4W	
R625	1-249-417-11	CARBON 1K 5% 1/4W F	
R626	1-249-414-11	CARBON 560 5% 1/4W F	
R627	1-249-429-11	CARBON 10K 5% 1/4W	

R629	1-249-438-11	CARBON 56K 5% 1/4W	
R630	1-249-441-11	CARBON 100K 5% 1/4W	
R631	1-249-417-11	CARBON 1K 5% 1/4W F	
R703	1-249-417-11	CARBON 1K 5% 1/4W F	
R704	1-249-429-11	CARBON 10K 5% 1/4W	

## < VARIABLE RESISTOR >

RV101	1-241-353-11	RES. VAR. CARBON 100K/100K (LEVEL)	
RV102	1-241-353-11	RES. VAR. CARBON 100K/100K (FREQUENCY)	

## < SWITCH >

S601	1-572-184-11	SWITCH, KEYBOARD (SYSTEM POWER)	
S602	1-572-184-11	SWITCH, KEYBOARD (DYNAMIC BASS SYSTEM)	
S603	1-572-184-11	SWITCH, KEYBOARD (MUTING -20dB)	

# PANEL

# POWER AMPLIFIER

Ref. No.	Part No.	Description	Remark
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S604	1-572-184-11	SWITCH, KEYBOARD (REAR SPEAKERS)	
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*	A-4360-254-A	POWER AMPLIFIER BOARD, COMPLETE (CND, AEP, UK)	
*	A-4360-259-A	POWER AMPLIFIER BOARD, COMPLETE (G, IT)	
*	A-4360-262-A	POWER AMPLIFIER BOARD, COMPLETE (EXCEPT CND, AEP, UK, G, IT)	

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## < CAPACITOR >

C401	1-124-257-00	ELECT	2. 2uF	20%	50V
C402	1-162-286-31	CERAMIC	220PF	10%	50V
C403	1-162-282-31	CERAMIC	100PF	10%	50V
C404	1-124-477-11	ELECT	47uF	20%	25V
C405	1-124-910-11	ELECT	47uF	20%	50V
C406	1-124-572-11	ELECT	100uF	20%	63V
C407	1-124-791-11	ELECT	1. 0uF	20%	100V
C408	1-124-916-11	ELECT	22uF	20%	63V
C409	1-136-165-00	FILM	0. 1uF	5%	50V
C410	1-136-163-00	FILM	0. 068uF	5%	50V
C411	1-136-163-00	FILM	0. 068uF	5%	50V
C431	1-162-306-11	CERAMIC (G, IT)	0. 01uF	20%	16V
C432	1-162-306-11	CERAMIC (G, IT)	0. 01uF	20%	16V
C433	1-162-306-11	CERAMIC (G, IT)	0. 01uF	20%	16V
C451	1-124-257-00	ELECT	2. 2uF	20%	50V
C452	1-162-286-31	CERAMIC	220PF	10%	50V
C453	1-162-282-31	CERAMIC	100PF	10%	50V
C454	1-124-477-11	ELECT	47uF	20%	25V
C455	1-124-910-11	ELECT	47uF	20%	50V
C456	1-124-572-11	ELECT	100uF	20%	63V
C457	1-124-791-11	ELECT	1. 0uF	20%	100V
C460	1-136-163-00	FILM	0. 068uF	5%	50V
C461	1-136-163-00	FILM	0. 068uF	5%	50V

## < DIODE >

D401	8-719-987-63	DIODE	1N4148M
D451	8-719-987-63	DIODE	1N4148M

## < IC >

IC401	8-749-921-68	IC	STK-4231MK2
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## < COIL >

L401	1-420-872-00	COIL, AIR CORE
L451	1-420-872-00	COIL, AIR CORE

Ref. No.	Part No.	Description	Remark
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## < TRANSISTOR >

Q401	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA
Q451	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA

## < RESISTOR >

R401	1-249-417-11	CARBON	1K	5%	1/4W	F
R402	1-249-438-11	CARBON	56K	5%	1/4W	
R403	1-249-415-11	CARBON	680	5%	1/4W	F
R404	1-249-438-11	CARBON	56K	5%	1/4W	
R405	1-249-429-11	CARBON	10K	5%	1/4W	
R406	1-249-429-11	CARBON	10K	5%	1/4W	
R407	1-249-429-11	CARBON	10K	5%	1/4W	
R408	1-249-429-11	CARBON	10K	5%	1/4W	
△R409	1-212-881-11	FUSIBLE	100	5%	1/4W	F
△R410	1-217-156-00	METAL PLATE	0. 22			
R411	1-249-417-11	CARBON	1K	5%	1/4W	F
R412	1-249-431-11	CARBON	15K	5%	1/4W	
R413	1-249-441-11	CARBON	100K	5%	1/4W	
R414	1-249-421-11	CARBON	2. 2K	5%	1/4W	F
R415	1-249-421-11	CARBON	2. 2K	5%	1/4W	F
R416	1-249-421-11	CARBON	2. 2K	5%	1/4W	F
R417	1-249-421-11	CARBON	2. 2K	5%	1/4W	F
R418	1-249-397-11	CARBON	22	5%	1/4W	F
R419	1-249-397-11	CARBON	22	5%	1/4W	F
R420	1-249-397-11	CARBON	22	5%	1/4W	F
R421	1-249-397-11	CARBON	22	5%	1/4W	F
R422	1-249-429-11	CARBON	10K	5%	1/4W	
R423	1-247-881-00	CARBON	120K	5%	1/4W	
R424	1-249-437-11	CARBON	47K	5%	1/4W	
R451	1-249-417-11	CARBON	1K	5%	1/4W	F
R452	1-249-438-11	CARBON	56K	5%	1/4W	
R453	1-249-415-11	CARBON	680	5%	1/4W	F
R454	1-249-438-11	CARBON	56K	5%	1/4W	
R455	1-249-429-11	CARBON	10K	5%	1/4W	
R456	1-249-429-11	CARBON	10K	5%	1/4W	
R457	1-249-429-11	CARBON	10K	5%	1/4W	
R458	1-249-429-11	CARBON	10K	5%	1/4W	
△R459	1-212-881-11	FUSIBLE	100	5%	1/4W	F
△R460	1-217-156-00	METAL PLATE	0. 22			
R461	1-249-417-11	CARBON	1K	5%	1/4W	F
R462	1-249-431-11	CARBON	15K	5%	1/4W	
R463	1-249-441-11	CARBON	100K	5%	1/4W	
R468	1-249-397-11	CARBON	22	5%	1/4W	F
R469	1-249-397-11	CARBON	22	5%	1/4W	F
R470	1-249-397-11	CARBON	22	5%	1/4W	F
R471	1-249-397-11	CARBON	22	5%	1/4W	F

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## POWER

## PRE AMPLIFIER

Ref. No.	Part No.	Description	Remark
*	1-645-254-11	POWER BOARD (CND, AEP, UK, G, IT)	
*	1-647-358-11	POWER BOARD (EXCEPT CND, AEP, UK, G, IT)	
*****			
*	1-533-213-31	HOLDER, FUSE (CND)	
*	1-533-293-11	HOLDER, FUSE (EXCEPT CND)	

## &lt; CAPACITOR &gt;

△C707	1-161-744-00	CERAMIC	0.01uF	400V
△C723	1-161-744-00	CERAMIC	0.01uF	400V
(CND, AEP, UK, G, IT)				

## &lt; JACK &gt;

△CNJ701	1-526-930-11	INLET, AC (∼ AC IN) (CND)	
△CNJ701	1-526-931-11	INLET, AC (∼ AC IN) (EXCEPT CND)	

## &lt; DIODE &gt;

D704	8-719-987-63	DIODE	1N4148M
D705	8-719-987-63	DIODE	1N4148M

## &lt; FUSE &gt;

△F701	1-532-286-00	FUSE (T2.5A) (AEP, UK, G, IT)	
△F701	1-532-299-00	FUSE (T5A) (EXCEPT CND, AEP, UK, G, IT)	
△F701	1-532-747-11	FUSE, GLASS TUBE (5A) (CND)	
△F702	1-532-286-00	FUSE (T2.5A) (EXCEPT CND, AEP, UK, G, IT)	

## &lt; TRANSISTOR &gt;

Q603	8-729-620-05	TRANSISTOR	2SC2603-EF
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## &lt; RELAY &gt;

△RY701	1-515-720-11	RELAY	
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## &lt; SWITCH &gt;

△S701	1-572-675-11	SWITCH, POWER VOLTAGE CHANGE (VOLTAGE SELECTOR) (EXCEPT CND, AEP, UK, G, IT)	
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*	A-4360-250-A	PRE AMPLIFIER BOARD, COMPLETE	
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## &lt; CAPACITOR &gt;

C101	1-124-257-00	ELECT	2.2uF	20%	50V
C109	1-124-234-00	ELECT	22uF	20%	16V
C151	1-124-257-00	ELECT	2.2uF	20%	50V
C159	1-124-234-00	ELECT	22uF	20%	16V
C301	1-124-257-00	ELECT	2.2uF	20%	50V
C302	1-162-282-31	CERAMIC	100PF	10%	50V
C303	1-124-234-00	ELECT	22uF	20%	16V

Ref. No.	Part No.	Description	Remark
C304	1-124-257-00	ELECT	2.2uF 20% 50V
C351	1-124-257-00	ELECT	2.2uF 20% 50V
C352	1-162-282-31	CERAMIC	100PF 10% 50V
C353	1-124-234-00	ELECT	22uF 20% 16V
C354	1-124-257-00	ELECT	2.2uF 20% 50V

## &lt; CONNECTOR &gt;

* CNJ103	1-568-830-11	SOCKET, CONNECTOR 11P	
* CNJ104	1-568-828-11	SOCKET, CONNECTOR 9P	
* CNJ105	1-573-299-11	CONNECTOR, BOARD TO BOARD 10P	
* CNJ106	1-562-368-21	CONNECTOR, BOARD TO BOARD 8P	

## &lt; DIODE &gt;

D303	8-719-987-63	DIODE	1N4148M
D304	8-719-987-63	DIODE	1N4148M

## &lt; IC &gt;

IC101	8-759-634-51	IC	M5218AP
IC301	8-759-634-51	IC	M5218AP

## &lt; TRANSISTOR &gt;

Q101	8-729-141-30	TRANSISTOR	2SC3623A-LK
Q151	8-729-141-30	TRANSISTOR	2SC3623A-LK
Q301	8-729-141-30	TRANSISTOR	2SC3623A-LK
Q302	8-729-141-30	TRANSISTOR	2SC3623A-LK
Q306	8-729-900-63	TRANSISTOR	DTA124ES
Q351	8-729-141-30	TRANSISTOR	2SC3623A-LK
Q352	8-729-141-30	TRANSISTOR	2SC3623A-LK
Q607	8-729-119-76	TRANSISTOR	2SA1175-HFE

## &lt; RESISTOR &gt;

R101	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R102	1-249-433-11	CARBON	22K	5%	1/4W	
R103	1-249-404-00	CARBON	82	5%	1/4W	
R104	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R105	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R106	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R107	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R108	1-249-441-11	CARBON	100K	5%	1/4W	
R119	1-249-417-11	CARBON	1K	5%	1/4W	F
R151	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R152	1-249-433-11	CARBON	22K	5%	1/4W	
R153	1-249-404-00	CARBON	82	5%	1/4W	
R154	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R155	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R156	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R157	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R158	1-249-441-11	CARBON	100K	5%	1/4W	
R169	1-249-417-11	CARBON	1K	5%	1/4W	F

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## PRE AMPLIFIER

## REAR AMPLIFIER

## SENSOR

Ref. No.	Part No.	Description	Remark			
R301	1-249-421-11	CARBON	2. 2K	5%	1/4W	F
R302	1-249-433-11	CARBON	22K	5%	1/4W	
R303	1-249-410-11	CARBON	270	5%	1/4W	F
R304	1-249-437-11	CARBON	47K	5%	1/4W	
R305	1-249-431-11	CARBON	15K	5%	1/4W	
R306	1-249-437-11	CARBON	47K	5%	1/4W	
R307	1-249-421-11	CARBON	2. 2K	5%	1/4W	F
R308	1-249-429-11	CARBON	10K	5%	1/4W	
R323	1-249-441-11	CARBON	100K	5%	1/4W	
R324	1-249-429-11	CARBON	10K	5%	1/4W	
R351	1-249-421-11	CARBON	2. 2K	5%	1/4W	F
R352	1-249-433-11	CARBON	22K	5%	1/4W	
R353	1-249-410-11	CARBON	270	5%	1/4W	F
R354	1-249-437-11	CARBON	47K	5%	1/4W	
R355	1-249-431-11	CARBON	15K	5%	1/4W	
R356	1-249-437-11	CARBON	47K	5%	1/4W	
R357	1-249-421-11	CARBON	2. 2K	5%	1/4W	F
R358	1-249-429-11	CARBON	10K	5%	1/4W	
R620	1-249-441-11	CARBON	100K	5%	1/4W	
R623	1-249-429-11	CARBON	10K	5%	1/4W	
R624	1-249-429-11	CARBON	10K	5%	1/4W	
*****						
*	A-4360-255-A	REAR AMPLIFIER BOARD, COMPLETE	(CND, AEP, UK)			
*	A-4360-260-A	REAR AMPLIFIER BOARD, COMPLETE	(G, IT)			
*	A-4360-263-A	REAR AMPLIFIER BOARD, COMPLETE	(EXCEPT CND, AEP, UK, G, IT)			
*****						
< CAPACITOR >						
C305	1-124-257-00	ELECT	2. 2uF	20%	50V	
C306	1-162-286-31	CERAMIC	220PF	10%	50V	
C307	1-124-910-11	ELECT	47uF	20%	50V	
C308	1-162-282-31	CERAMIC	100PF	10%	50V	
		(EXCEPT G, IT)				
C308	1-162-286-31	CERAMIC	220PF	10%	50V	
		(G, IT)				
C309	1-126-163-11	ELECT	4. 7uF	20%	50V	
C310	1-136-165-00	FILM	0. 1uF	5%	50V	
C311	1-136-165-00	FILM	0. 1uF	5%	50V	
C312	1-124-915-11	ELECT	10uF	20%	63V	
C355	1-124-257-00	ELECT	2. 2uF	20%	50V	
C356	1-162-286-31	CERAMIC	220PF	10%	50V	
C357	1-124-910-11	ELECT	47uF	20%	50V	
C358	1-162-282-31	CERAMIC	100PF	10%	50V	
		(EXCEPT G, IT)				
C358	1-162-286-31	CERAMIC	220PF	10%	50V	
		(G, IT)				
C359	1-126-163-11	ELECT	4. 7uF	20%	50V	

Ref. No.	Part No.	Description	Remark			
C360	1-136-165-00	FILM	0.1uF	5%	50V	
C361	1-136-165-00	FILM	0.1uF	5%	50V	
C362	1-124-915-11	ELECT	10uF	20%	63V	
< CONNECTOR >						
* CNJ108 1-564-344-11 CONNECTOR, BOARD TO BOARD 8P						
* CNJ302 1-562-368-21 CONNECTOR, BOARD TO BOARD 8P						
* CNP501 1-564-337-51 PIN, CONNECTOR 3P						
< DIODE >						
D507	8-719-987-63	DIODE	1N4148M			
< IC >						
IC302	8-759-502-32	IC	SI18752N			
IC352	8-759-502-32	IC	SI18752N			
< RESISTOR >						
R309	1-247-887-00	CARBON	220K	5%	1/4W	
R310	1-249-437-11	CARBON	47K	5%	1/4W	
R311	1-249-437-11	CARBON	47K	5%	1/4W	
R312	1-249-437-11	CARBON	47K	5%	1/4W	
R313	1-249-428-11	CARBON	8.2K	5%	1/4W	F
R314	1-247-883-00	CARBON	150K	5%	1/4W	
R315	1-249-397-11	CARBON	22	5%	1/4W	F
R316	1-249-397-11	CARBON	22	5%	1/4W	F
R359	1-247-887-00	CARBON	220K	5%	1/4W	
R360	1-249-437-11	CARBON	47K	5%	1/4W	
R361	1-249-437-11	CARBON	47K	5%	1/4W	
R362	1-249-437-11	CARBON	47K	5%	1/4W	
R363	1-249-428-11	CARBON	8.2K	5%	1/4W	F
R364	1-247-883-00	CARBON	150K	5%	1/4W	
R365	1-249-397-11	CARBON	22	5%	1/4W	F
R366	1-249-397-11	CARBON	22	5%	1/4W	F
R518	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R519	1-249-441-11	CARBON	100K	5%	1/4W	
*****						
* 1-645-262-11 SENSOR BOARD						
*****						
< CAPACITOR >						
C512	1-164-159-11	CERAMIC	0.1uF		50V	
< IC >						
IC503	8-759-947-34	IC	LM35DZ			
*****						

VOL

Ref.No.	Part No.	Description	Remark		
*	1-645-250-11	VOL BOARD			
		*****			
		< CAPACITOR >			
C606	1-162-306-11	CERAMIC	0.01uF	20%	16V
C610	1-126-157-11	ELECT	10uF	20%	16V
		< CONNECTOR >			
* CNJ109	1-568-828-11	SOCKET, CONNECTOR 9P			
CNJ110	1-568-317-11	SOCKET, CONNECTOR 6P			
CNJ111	1-568-317-11	SOCKET, CONNECTOR 6P			
* CNP101	1-564-506-11	PLUG, CONNECTOR 3P			
		< DIODE >			
D614	8-719-200-82	DIODE	11ES2		
		< IC >			
IC602	8-759-820-62	IC	LB1639		
		< VARIABLE RESISTOR >			
RV103	1-223-175-11	RES, VAR, CARBON 10K/100KX4 (VOLUME)			
*****					
		MISCELLANEOUS			
		*****			
11	1-590-035-11	WIRE, FLAT TYPE (11 CORE)			
17	1-590-576-11	WIRE, FLAT TYPE (11 CORE)			
51	1-590-241-11	WIRE, FLAT TYPE (9 CORE)			
M501	1-541-953-11	MOTOR, DC FAN			
△T701	1-423-545-11	TRANSFORMER, POWER (AEP, G, IT)			
△T701	1-423-546-11	TRANSFORMER, POWER (EXCEPT CND, AEP, UK, G, IT)			
△T701	1-423-549-11	TRANSFORMER, POWER (UK)			
△T701	1-423-699-11	TRANSFORMER, POWER (CND)			
*****					
		*****			
		HARDWARE LIST			
		*****			
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S			
#2	7-682-548-04	SCREW +BVTT 3X8 (S)			
#3	7-682-547-09	SCREW +BVTT 3X6 (S)			
#4	7-685-871-01	SCREW +BVTT 3X6 (S)			
#5	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3			
#6	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3			
#7	7-685-647-71	SCREW +BVTP 3X10 TYPE2 IT-3			

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